

Please add new claims 19-30 as shown in the Clean Copy of the Claims.

REMARKS

Reconsideration of the Office Action of January 30, 2002 is respectfully requested.

To summarize the claim changes made in this Amendment, claims 1-14 are canceled and replaced with claims 19-30 of which claims 19-29 are dependent from claim 15, and claim 30 is a new independent claim corresponding to claim 18, with the difference that the expression "insulating material" is replaced with the expression "insulating fabric".

REJECTIONS UNDER 35 U.S.C. § 102 AND § 103

To facilitate the discussions to follow a summary of the Examiner's prior art rejections is set out below:

(A) Claims 1-5, 7-8, 10, and 15-17 were rejected under 35 U.S.C. § 102(b) as considered by the Examiner anticipated by Fuki et al. (U.S. Patent No.4,715,235).

(B) Claims 1, 4-6, 8-10, 15-16 and 18 were rejected under 35 U.S.C. § 102(b) as being considered by the Examiner anticipated by Kikuo et al. (U.S. Patent No.5,010,774).

(C) Claims 1, 4-5, and 7-8 were rejected under 35 U.S.C. § 102(b) as being considered by the Examiner anticipated by Kirby (U.S. Patent No.4,506,250).

(D) Claims 2-3 and 11-14 were rejected under 35 U.S.C. § 103(a) as being considered unpatentable over Kikuo et al. (previous cite) in view of Reinhold et al. (DE 42374702).

(E) Claims 7 and 17 were rejected under 35 U.S.C. § 103(a) as being considered unpatentable over Kikuo (previous cite), or Kikuo (previous cite) with Reinhold (previous cite) as applied to claims the claims above, and further in view of Yaniger (U.S. Patent No. 5,296,837).

(F) Claims 2-3 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Kikuo (previous cite), or Kikuo (previous cite) with Reinhold (previous cite) as applied to the claims above, and further in view of Fujitani (U.S. Patent No.4,258,100) or Fukui et al. (previous cite).

Each of rejections A-F are respectfully traversed or submitted to be non-applicable for the reasons set out below.

In the present Amendment, claims 1-14 have been canceled and claims 15-18 remain as filed. In addition, new claims 19-30 have been added with the claims 19-29 generally corresponding to previous claims 2-4, 6, and 8-14, but depending from claim 15. New independent claim 30 generally corresponds to claim 18, with the difference that the expression “insulating material” has been replaced by the expression “insulating fabric”. The added claims re-emphasize the features of claim 15 which highlight the flexible support made of an insulating fabric.

A review of rejections A-F above reveals that claims 15-18 were noted (see the underlined claims above) in rejections A, B and E only. Accordingly, the discussion below focuses on the referenced combinations of these prior art rejections. The other prior art rejections such as based on Kirby not being applied or deemed applicable to the current claims.

As to rejection A, Fukui et al. (US Patent 4,715,235) discloses, with respect to Fig. 42, a stretch sensitive electroconductive device comprising a flexible support 79, a stretch-sensitive electroconductive sheet 73' arranged on the flexible support, an insulation breakdown sheet 72' arranged on the stretch sensitive electroconductive sheet 73', and electrode plates 74 arranged on the insulation breakdown sheet 72'. Fukui et al. neither discloses a passenger detector nor the electrode plates 74 being arranged on the flexible support 79, nor a layer of semi-conducting

material arranged on top of the electrode structures. Even if, for the sake of discussion, one equals the stretch sensitive electroconductive sheet 73' of Fukui to the layer of semi-conducting material having an internal resistance that varies with a deformation of the present invention, Fukui does not disclose this layer of semi-conducting material being arranged in intimate contact with the electrode plates 74 as disclosed in claim 15. In fact, fig. 42 of Fukui et al clearly shows the electrode plates 74' and the stretch sensitive electroconductive sheet 73' separated by insulation breakdown sheet 72'. It follows that Fukui et al. does not anticipate either claim 15 or its depending claims, nor independent claims 18 and 30 of the present invention.

As to rejection B, Kikuo et al. (US Patent 5,010,774) discloses in fig. 22 a use of a distribution type tactile sensor according to figs 20 and 21 as a passenger detector (see description col. 14, lines 14 to 17). This passenger detector comprises a plurality of unit sensors 10, i.e. a plurality of active zones, each of which comprises a pressure sensitive conductive rubber 3 sandwiched between electrodes Eo and Ep (see description col. 14, lines 18 to 19 together with fig.21). As described in more detail with respect to fig. 21 (see col. 14, line 37), the electrode Ep comprises a printed electrode on a substrate plate 17, on which a pressure sensitive conductive rubber 3 is disposed, and on which the other electrode Eo is laminated. Thus Kikuo does not disclose a passenger detector, having at least two electrode structures arranged on a flexible support at a distance from each other as disclosed in claim 15. Furthermore, as the pressure sensitive conductive rubber 3 is sandwiched between the two electrodes Eo and Ep, Kikuo does not anticipate a layer of semiconducting material arranged on top of said electrode structures in an active zone of said detector.

Fig. 23 of the Kikuo patent shows how the different unit sensors 10 (as shown in fig. 21) of the device according to fig. 22 are interconnected. This figure shows that electrode leads 4 and

5 (it is believed should read 2, see col. 15, lines 16 to 24), which are used to electrically contact the electrodes Eo and Ep, are fixed to a stretchable ribbon-type member 20. Even if, for the sake of discussion one construes (as has been done in the Office Action) the electrode leads 4 and 2 of Kikuo as being equivalent to the electrodes of claims 15, 18 or new 30 of the present invention, Kikuo nevertheless fails to disclose a device according to any one of these claims as the pressure sensitive conductive-rubber 3 (which is presumed being construed in the Office Action as being equivalent to the layer of semiconducting material) is not arranged in intimate contact with said electrode leads 4 and 2. This is clearly shown in fig. 21, where the rubber 3 is separated from the electrode leads by printed Ep electrode and substrate plate 17.

Applicants note that a review of the secondary references to Reinhold, Yaniger and Fujitani reveals that they fail to remedy the above noted deficiencies relative to the base references of Fuki and Kikuo discussed above.

Therefore, the features of the presently claimed invention are respectfully submitted not to have been made obvious singly and/or in any combination of the cited art. Independent claims 15, 18 and 30, and the dependent claims thereon, are respectfully submitted to be in condition for allowance.

Regarding the Examiner's drawing objection, enclosed herewith is a Proposed Drawing Amendment being submitted for the Examiner's approval with a set of two drawings showing all the features of claims 15, 18 or 30 and, as outlined below, free of any new matter.

The submitted Fig. 1 is a sectional view of an active zone of a detector according to claim 15, 18 or 30. It shows a flexible support 10, e.g. made of an insulating fabric, having two electrode structures 12 and 14 arranged thereon, said electrode structures being arranged at a

distance from each other. A layer of semiconducting material 18 is applied on top of the electrode structures in intimate contact with the electrode structures.

Enclosed fig. 2 is a top view of a section of a passenger detector according to claim 18 or 30. In this embodiment, the layer of semiconducting material is divided into several zones, which are arranged on the electrode structures for forming different active zones of the detector.

Each feature shown in Figures 1 and 2 is submitted to find support in the present application so as to leave no ambiguity relative to the features shown. For example, reference is made to the paragraph bridging pages 4 and 5, referencing a supporting sheet or support (e.g., shown schematically as 10 in the new drawings) on to which are deposited both the electrode structures (e.g., 12 in the new figures – again shown schematically). The inclusion of a layer of semiconductor material 18 is described, for example, on page 7 line 9 to end, which includes, for example, the possibility of using semiconducting ink on said electrode structures.

The dividing of the semiconducting material 18 into a plurality of zones is covered in, for example, the last paragraph of page 7 with the figures showing schematically a plurality of different zones.

Thus, as the supplemental drawings, which are not needed for an understanding of the invention by one of ordinary skill in the art but have been provided to facilitate a faster review of the application, do not introduce new matter as they find explicit or at least inherent support in the original supplication. Entry of these new drawings is respectfully requested.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections and objections. It is believed that a

full and complete response has been made to the outstanding Office Action, and as such, the present Application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication

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will expedite prosecution of this application, the Examiner is invited to telephone the undersigned attorney.

Respectfully submitted,

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